AMENDMENTS TO THE CLAIMS

10/533327
JC17 Rec'd PCT/PTO 0 2 MAY 2005

The listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims

1.   (Currently Amended)   A telecommunications system arranged for providing client service applications ~~(Appl-1, Application)~~ with access to service capability features via a standardized interface ~~(OSA/PARLAY API)~~, the system ~~comprising~~ comprising:

a number of application servers ~~(AS-1)~~ ~~where~~ providing client service applications; ~~run (Appl-1, Application),~~

a number of first service enablers ~~(SCS-1)~~ where first service capability features ~~(SCF-1)~~ are specified in a first ~~(receiver)~~ network domain; ~~domain,~~

a first Framework ~~(FW- 1; Receiver.Framework)~~ for providing a controlled access to said first service capability features; ~~features, and~~

a number of core network elements; ~~elements, the telecommunications system characterized in that~~

a number of second service enablers where second service capability features are specified in a second network domain;

a second Framework for providing a controlled access to said second service capability features;

wherein said first Framework ~~(FW- 1; Receiver Framework)~~ is arranged for communicating with ~~at least one~~ said second Framework ~~(FW-2; Donor Framework)~~ ~~intended~~ for accessing said second service capability features ~~(SCF-2)~~ specified in a said number of second service enablers ~~(SCS-2)~~ of a ~~second (donor)~~ said second network domain.

2.   (Currently Amended)   The telecommunications system of claim 1, wherein the first and second Frameworks ~~(FW-1, Receiver Framework ; FW-2, Donor Framework)~~ comprise protocol means for allowing a framework-to-framework communication.

3.   (Currently Amended) .   The telecommunications system of claim 2, wherein said protocol means includes means for advertising toward a first framework (FW-1, Receiver Framework; FW-2, Donor Framework) in a first network domain the existence of a second framework (FW-2, Donor Framework; FW-1, Receiver Framework) in a second network domain with which service capability features (SCF-2; SCF-1) can be shared.

4.   (Currently Amended)   The telecommunications system of claim 3, wherein said protocol means includes means for advertising from a second framework (FW-2; FW-1; Donor Framework) in a second network domain towards a first framework (FW-1;FW-2 ; Receiver Framework) in a first network domain that service capability features (SCF, capabilities) can be offered from service enablers (SCS-2; SCS-1) of said second network domain to client applications (Appl-1; Applications) of said first network domain.

5.   (Currently Amended)   The telecommunications system of claim 3, wherein the means for advertising towards a first framework (FW-1; FW-2) the existence of a second framework (FW-2 ; FW-1) includes means for the second framework registering itself in the first framework.

6.   (Currently Amended)   The telecommunications system of claim 3, wherein the means for advertising towards a first framework (Donor Framework; Receiver Framework) in a first domain the existence of a second framework (Receiver Framework; Donor Framework) in a second domain includes means for the operator (Donor Operator; Receiver operator) of said first domain registering the second framework in the first framework.

7.   (Currently Amended)   The telecommunications system of claim 4, wherein the means for advertising service capability features that can be offered from service enablers of a second network domain includes means for notifying from a second framework (FW-2; FW-1; Donor Framework) in said second network domain towards a

first framework ~~(FW-1; FW-2; Receiver Framework)~~ in a first network domain at least one element of service information selected from a group of elements that comprises: service identifier, service type, service availability, service properties and service interface.

8.   (Currently Amended)   The telecommunications system of claim 7, wherein the means for advertising the existence of service capability features available at service enablers of a second network domain includes means for creating, from a first framework ~~(FW-1; FW-2; Receiver Framework)~~ in a first network domain toward a second framework ~~(FW-2; FW-1; Donor Framework)~~ in a second network domain, criteria for notification of such element of service information.

9.   (Currently Amended)   The telecommunications system of ~~any preceding claim~~ claim 1 further comprising means for carrying out security management mechanisms between a first framework ~~(FW-1; Receiver Framework)~~ in a first network domain and a second framework ~~(FW-2 ; Donor Framework)~~ in a second network domain.

10.   (Original)   The telecommunications system of claim 9, wherein the means for carrying out security management mechanisms between said first and said second frameworks includes means for capturing service agreements between first and second domains, the service agreements representing a policy applied between said first and second domains.

11.   (Original)   The telecommunications system of claim 9, wherein the means for carrying out security management mechanisms between said first and said second frameworks includes means for handing over service assertions and signatures.

12.   (Currently Amended)   The telecommunications system of ~~any preceding claim~~ claim 1 further comprising means for discovering service capability features available at service enablers of a second network domain ~~(SCS-2)~~ between a first

framework (FW-1; Receiver Framework) in a first network domain and a second framework (FW-2; Donor Framework) in a second network domain.

13.   (Currently Amended)   The telecommunications system of claim 12, wherein the means for discovering available service capability features between said first framework (FW-1; Receiver Framework) and said second framework (FW-2; Donor Framework) includes means for negotiating specific capabilities as required by a client application (Appl-1; Application) in a first domain.

14.   (Currently Amended)   The telecommunications system of claim 13, further comprising means for returning from a second framework (FW-2; Donor Framework) in a second network domain towards a first framework (FW-1; Receiver Framework) in a first network domain a reference to a service instance created at a service enabler (SCS-2) of said second network domain, for allowing an application (Appl-1; Application) in the first network domain make use of corresponding service of the second network domain.

15.   (Currently Amended)   The telecommunications system of any preceding claim claim 1 further comprising a Service Enabler Proxy (SCS-Proxy) interposed between a first (Receiver) domain and a second (Donor) domain and intended for acting as a Proxy for service requests from applications (Appl-1; Application) in the first domain toward service enablers (SCS-2) of the second domain as well as communications in the opposite direction.

16.   (Currently Amended)   The telecommunications system of claim 15, wherein said Service Enabler Proxy (SCS-Proxy) is provided in a first (Receiver) domain and comprises a number of dedicated service capability features (SCS-1) of said first domain for storing references of corresponding service capability features (SCS-2) of a second (Donor) domain.

17. (Currently Amended)   The telecommunications system of claim15, further comprising means for creating a Service Enabler Proxy (SCS Proxy) automatically in the first (Receiver) domain based on information received from a framework (Donor Framework) in a second (Donor) domain, said information including at least one element of service information selected from a group of elements that comprises: service type, service properties and service interface.

18. (Currently Amended)   The telecommunications system of claim 15, further comprising means for downloading source code or run- time code from the second (Donor) domain intended to create a Service Enabler Proxy (SCS Proxy) in the first (Receiver) domain.

19. (Currently Amended)   The telecommunications system of claim 15, wherein a particular service enabler of a second (Donor) domain is registered in a first framework (FW-1; Receiver Framework) of a first (Receiver) domain for acting as a Service Enabler Proxy (SCS Proxy) towards a second (Donor) domain.

20. (Currently Amended)   The telecommunications system of any preceding claim claim 1, wherein the first (Receiver) network domain includes a Home core network of a user whereas the second (Donor) network domain includes a Visited core network where the user is roaming.

21. (Currently Amended)   A method of providing client service applications with access to service capability features via a standardized interface (OSA/PARLAY API), the method comprising the steps of:

(a) registering first service capability features (SCF 1) in a first (Receiver) network domain with a first Framework (FW-1 ; Receiver Framework) and second service capability features (SCF 2; capabilities) in a second (Donor) network domain with a second Framework (FW 2; Donor Framework);

(b) carrying out security management mechanisms for authentication and authorization of a number of players selected from a group that includes user, network,

a requester application, and combinations thereof, in each network domain (Receiver domain; Donor domain) through each respective Framework; and

(c) discovering first service capability features (SCF 1) that are available for use by a requester application (Appl 1; Application) in said first (Receiver) network domain;

the method characterized by including the steps of

(d) determining in the first (Receiver) network domain that service capability features (SCF 2) at a second (Donor) network domain may be available for the requester application (Appl 1; Application) ;

(e) carrying out security management mechanisms for authentication and authorization from a first Framework (FW 1; Receiver Framework) of said first (Receiver) network domain, through a second Framework (FW 2; Donor Framework) of said second (Donor) network domain; and

(f) discovering second service capability features (SCF 2) that are available for use by said requester application (Appl 1; Application) in said second (Donor) network domain.

22.   (Currently Amended)   The method of claim 21, wherein the step of determining that service capability features are available at a second network domain includes a step of requesting to the first Framework (FW 1; Receiver Framework) in the first (Receiver) network domain for an access to the second service capability features (SCF 2) available in the second (Donor) network domain for the requester application (Appl 1; Application).

23.   (Currently Amended)   The method of claim 22, wherein the step of determining that second service capability features (SCF 2) are available at a second (Donor) network domain includes a step of receiving such information from a first service capability feature (SCF 1) selected in the first (Receiver) network domain.

24.   (Currently Amended)   The method of claim 21, wherein the step of discovering second service capability features (SCF 2) that are available in the second (Donor) network domain comprises a step of negotiating capabilities from the first

Framework ~~(FW-1; Receiver Framework)~~ of the first ~~(Receiver)~~ network domain with the second Framework ~~(FW-2; Donor Framework)~~ of the second ~~(Donor)~~ network domain.

25.   (Currently Amended)   The method of claim 24, wherein the step of negotiating capabilities includes a step of creating an instance of a selected service capability feature ~~(SCF-2)~~ at a service enabler ~~(SCS-2)~~ of a second ~~(Donor)~~ domain, and a step of returning back a reference to such instance from the second Framework ~~(FW-2; Donor Framework)~~ of the second ~~(Donor)~~ network domain to the first Framework ~~(FW-1 ; Receiver Framework)~~ of the first ~~(Receiver)~~ network domain.

26.   (Currently Amended)   The method of claim 21, further comprising a step of registering a second Framework ~~(FW-2; Donor Framework)~~ of a second ~~(Donor)~~ network domain with a first Framework ~~(FW-1; Receiver Framework)~~ of a first ~~(Receiver)~~ network domain.

27.   (Currently Amended)   The method of claim 26, wherein the step of registering frameworks includes a step of registering the second Framework ~~(FW-2)~~ itself in the first Framework ~~(FW-1)~~, and another step of registering the first Framework ~~(FW-1)~~ itself in the second Framework ~~(FW-2)~~.

28.   (Currently Amended)   The method of claim 26, wherein the step of registering frameworks includes a step where the operator of a second ~~(Donor)~~ network domain registers a first Framework ~~(FW-1; Receiver Framework)~~ of a first ~~(Receiver)~~ network domain in a second Framework ~~(FW-2 ; Donor Framework)~~, and another step where the operator of a first ~~(Receiver)~~ network domain registers a second Framework ~~(FW-2; Donor Framework)~~ of a second ~~(Donor)~~ network domain in a first Framework ~~(FW-1 ; Receiver Framework)~~.

29.   (Original)   The method of claim 26, further comprising a step of publishing at least one interface that allows said first and said second Frameworks to access the service capability features respectively controlled by each other.

30. (Currently Amended)   The method of claim 21, further comprising a step of exchanging information between a first ~~(FW-1)~~ and a second ~~(FW-2)~~ Framework about available service capability features ~~(SCF-1; SCF-2)~~ in a first and a second network domain respectively, with or without explicit indication of the interface required to access such service capability features.

31. (Currently Amended)   The method of claim 30, further comprising a step of indicating to at least one first service capability feature ~~(SCF-1)~~ in a first network domain the at least one second service capability feature ~~(SCF-2)~~ available in a second network domain, and vice versa.

32. (Currently Amended)   The method of ~~any of claims 21 to 31~~ claim 21, further comprising a step of capturing Service Level Agreements between the network operator of a network domain and a service provider of a requester application.

33. (Currently Amended)   The method of claim 32, further comprising a step of capturing Service Level Agreements between a first and a second network domains through corresponding first ~~(FW-1 ; Receiver Framework)~~ and second ~~(FW-2; Donor Framework)~~ Frameworks.

34. (Currently Amended)   The method of claim 33, wherein said Service Level Agreements are extended between second ~~(Donor)~~ domains and first ~~(Receiver)~~ domains in a telecommunication network with multiple domains, the method further comprising the steps of:
- creating and assigning a Federation Service Profile on a Donor Framework;
- signing a Federation Service Agreement on a Donor Framework;
- installing ~~(registering)~~ in a Receiver Framework necessary information about a Donor Service for a client application being able to discover the Donor Service; and

- requesting a Receiver Application Service Agreement within the bounds of a Federation Service Agreement from a Donor Framework.

35. (Original) The method of claim 34, wherein a Receiver Application Service Agreement serves as a partition of a Federation Service Agreement.

36. (Currently Amended) The method of ~~any of claims 21 to 35~~ claim 21, wherein the steps of carrying out security management mechanisms include the steps of handing out and handing over an Assertion that gives a practitioner the right to use a service in a federated framework setup.

37. (Currently Amended) The method of claim 36, further comprising the steps of:
- handing over an Assertion by a Receiver Framework to any other entity ;
- signing an Agreement about the hand-out and/or hand-over of an Assertion;
- requesting an Assertion ; and
- a Donor Service Enabler ~~(SCS-2)~~ checking the validity of a received Assertion with a Donor Framework.

38. (Currently Amended) The method of ~~any of claims 21 to 37~~ claim 21, further comprising a step of creating in a first ~~(Receiver)~~ domain a Service Enabler Proxy ~~(Proxy-SCS)~~ arranged to act as a proxy for communicating with an instance of a selected second service capability feature at a service enabler of the second ~~(Donor)~~ domain.

39. (Currently Amended) The method of claim 38, further comprising a step of enforcing service agreements and policies at the Service Enabler Proxy ~~(Proxy-SCS)~~.

40. (Currently Amended) The method of claim 38, wherein the step of creating a Service Enabler Proxy in a first Framework ~~(FW-1; Receiver Framework)~~ of a first ~~(Receiver)~~ network domain includes a step of obtaining service information at the first

(Receiver) network domain from a second (Donor) network domain for least one element of service information selected from a group of elements that comprises: service type, service properties and service interface.

41.   (Currently Amended)   The method of claim 38, wherein the step of creating a Service Enabler Proxy in a first Framework (FW-1; Receiver Framework) of a first (Receiver) network domain includes a step of downloading source code or run-time code from a second (Donor) domain.

42.   (Original)   The method of claim 41, wherein the step of downloading source code or run-time code includes a step of downloading local policy enforcement rules.

43.   (Currently Amended)   The method of claim 38, wherein the step of creating a Service Enabler Proxy in a first Framework (FW-1 ; Receiver Framework) of a first (Receiver) network domain includes a step of registering a Service Enabler of a second (Donor) domain in the first Framework of the first (Receiver) domain where both domains are allowed to set-up agreements and policies that need to be enforced by the Service Enabler.

44.   (Currently Amended)   The method of claim 38, wherein a Service Enabler Proxy is created by the first (Receiver) Framework for each client application.

45.   (Currently Amended)   The method of claim 38, wherein the step of creating a Service Enabler Proxy in a first Framework (FW-1 ;Receiver Framework) of a first (Receiver) network domain includes a step of creating instances of said Service Enabler Proxy for each client application.